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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Guillermo J. Tearney

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EXAMINER

THOMAS, BRANDI N

ART UNIT

PAPER NUMBER

2873

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,966	Applicant(s) TEARNEY ET AL.	
	Examiner BRANDI N. THOMAS	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-145 is/are pending in the application.
- 4a) Of the above claim(s) 16-38,40-74,76-108 and 110-145 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15,39,75 and 109 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/20/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 109 is rejected under 35 U.S.C. 102(b) as being anticipated by Harte (4056724).

Regarding claim 109, a confocal microscope lens arrangement comprising: a lens assembly including a plurality of lenses, wherein a first lens (114a, 114b, 120, 133a, 133b, and 135) of the plurality of lenses is an aplanat lens (col. 9, lines 26-39), wherein a second lens (111, 116, and 123) of the plurality of lenses is a piano-convex lens, wherein the first lens of the plurality of lenses is closer to a focal point of the lens assembly than the second lens of the plurality of lenses, and wherein the first lens of the plurality of lenses is the closest lens of the plurality of lenses to the focal point of the lens assembly (col. 9, lines 26-39).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 39, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krauter (5191879) in view of Pawloski et al. (7014966 B2).

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Regarding claims 1 and 75, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, comprising: a lens assembly housing (23) including a lens assembly (21) (col. 3, lines 33-35); an exterior housing (20) including a distal end (26) and a proximal end (27) (col. 3, lines 44-49), the exterior housing (figure 2) configured to allow the lens assembly housing (20) to be placed therein, and translated between the proximal end (27) and distal end (26) of the exterior housing (figure 2) to focus the lens assembly (20) (col. 3, lines 44-49); an area filling the volume of area between the exterior housing (20) and the lens assembly housing (23) (figures 2 and 3) but does not specifically disclose an immersion media area filling the volume of area between the exterior housing and the lens assembly housing. Pawloski et al. discloses an immersion media area filling the volume of area between the exterior housing and the lens assembly housing (col. 5, lines 43-50). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Krauter with the immersion media of Pawloski et al. for the purpose of filling the space between the photo resist and the optics in the imaging system (col. 5, lines 43-45).

Regarding claim 2, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, wherein the exterior housing (20) is dimensioned such that a clearance area is provided between the lens assembly housing (23) and the exterior housing (20) (figures 2 and 3).

Regarding claims 3 and 4, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, wherein the clearance area is sized to allow a portion of the air to flow from the distal end of the exterior housing to the proximal end of the exterior housing when the lens assembly is translationed toward the distal end of the exterior housing (20) (figures 2 and 3) but does not specifically disclose an immersion media. Pawloski et al. discloses an immersion media

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area (col. 5, lines 43-50). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Krauter with the immersion media of Pawloski et al. for the purpose of immersing the specimen.

Regarding claim 39, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement but does not specifically disclose wherein the immersion medium is a fluid. Pawloski et al. discloses an immersion medium is a liquid (col. 5, lines 8-12). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Krauter with the immersion media of Pawloski et al. for the purpose of immersing the specimen.

5. Claims 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krauter (5191879) in view of Pawloski et al. (7014966 B2) as applied to claim 1 above, and further in view of Garini (6552794 B2).

Regarding claims 5 and 10, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, wherein the distal end (26) of the exterior housing (20) comprising a coverslip (figures 2 and 3) but does not specifically disclose an aperture, and wherein the coverslip is placed in registration with the aperture. Garini discloses an aperture and a coverslip, and wherein the coverslip is placed in registration with the aperture (col. 6, lines 42-50). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Krauter with the aperture of Garini for the purpose of less light and depolarization.

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Regarding claims 6, 8, 14, and 15, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement but does not specifically disclose wherein the coverslip is composed of a transparent polymer with a refractive index of within five percent of 1.38. It would have been obvious to modify the invention to include wherein the coverslip is composed of a transparent polymer with a refractive index of within five percent of 1.38, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416).

Regarding claims 7 and 13, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, wherein the coverslip includes a first side and a second side, the first side being in contact with the air filling the space between the exterior and lens housings, and the second side being coated with a polymer. (figures 2 and 3) but does not specifically disclose an immersion media. Pawloski et al. discloses an immersion media area (col. 5, lines 43-50). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Krauter with the immersion media of Pawloski et al. for the purpose of immersing the specimen.

Regarding claim 9, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, wherein the lens assembly housing (23) includes a first end and a second end (figures 2 and 3).

Regarding claim 11, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, wherein the lens assembly (23) includes at least one lens (imager, 21) (col. 3, lines 54-57).

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Regarding claim 12, Krauter discloses, in figures 2 and 3, a confocal microscope lens arrangement, wherein the a least one lens (imager, 21) of the lens assembly is in contact with the air between the exterior and lens housings but does not specifically an immersion media.

Pawloski et al. discloses an immersion media area (col. 5, lines 43-50). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Krauter with the immersion media of Pawloski et al. for the purpose of immersing the specimen.

Response to Arguments

6. Applicant's arguments with respect to claims 1-15, 39, 75, and 109 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDI N. THOMAS whose telephone number is (571)272-2341. The examiner can normally be reached on Monday - Thursday from 6-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brandi N Thomas/
Examiner
Art Unit 2873

BNT
February 12, 2009

/Ricky L. Mack/
Supervisory Patent Examiner, Art Unit 2873